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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,908	10/29/2001	Waheguru Pal Singh	LYNN/120.A	9750

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EXAMINER
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QAZI, SABIHA NAIM

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/052,908		SINGH ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Sabiha Qazi		1616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 26-37, 40-42 and 44-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-37, 40-42 and 44-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Claims 26-37, 40-42 and 44-49 are pending. No claim is allowed.

This application is a divisional of 09/733611, filed on December 8, 2000.

Acknowledgment is made of the Remarks filed on August 3, 2004. Arguments were fully considered but were not found persuasive. Rejections stand for the same reasons as set forth in our previous Office Action(s); new rejections are added below.

The reason why this Office Action is the second non-final is because an IDS was filed on October 28<sup>th</sup>, 2004 (**Yesterday!**). In this IDS, there are two references, EP 0905227 and US 5415668, which make the instant invention *prima facie* obvious. See the new rejections below.

**Response to Remarks Filed on August 3, 2004**

Applicants argue that the claimed invention does not have any organic compounds and contain an exothermic control agent, but the claim uses the word "comprising". The term "comprising" cited in claims is inclusive and fails to exclude unrecited steps. The use of the term comprising to introduce claimed structure means that the ingredients covered by these claims may involve more elements than those positively recited. *Ex parte Gottzein et al.*, 168 USPQ 176 (PTO Bd. App. 1969). Comprising leaves the claim open for inclusion of unspecified ingredients even in major amounts. *Ex parte Davis et al.*, 80 USPQ 448 (PTO Bd. App. 1948).

Applicants argue that the instant inventions provide a sterilizing solution, whereas prior art teaches a disinfectant. Examiner respectfully disagrees.

Examiner would like to make two points:

1) The OAKES et al reference gives sterilizing results (see col. 8, lines 1-24, specifically line 24). The reference even says, "Higher levels of peracids can be employed in the use solution

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to obtain disinfecting or sterilizing results.” The reference teaches BOTH disinfecting and sterilizing results.

2) Even if OAKES et al didn’t teach this, it has been established by the Courts that even in a case where the reference does not teach the same use of the composition, the two different intended uses are not distinguishable in terms of the composition, see *In re Thuau*, 57 USPQ 324; *Ex parte Douros*, 163 USPQ 667; and *In re Craige*, 89 USPQ 393.

Furthermore, OAKES et al teaches the use of a stabilizer (see Abstract). In the instant application, they’re using the term “exothermic control agent”. It appears these two have the same function when present in a solution.

**35 USC § 102(a)**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

*(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.*

Claims 26-37,40-42 and 44-49 are rejected under 35 U.S.C. 102(a) as being anticipated by CAMPESTRINI et al<sup>1</sup>.

CAMPESTRINI et al. discloses the compositions of diperacids (also called mono- or di-percarboxylic acids) having from 5 to 12 carbon atoms. See paragraph [0006] on page 2. The

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<sup>1</sup> European Patent No. 0 905 227 A1, published on March 31, 1999.

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reference also discloses an activator that needs to meet a balance between shelf-stability of that combination, and its capability to react as fast as possible in water. See paragraph [0004] on page

2. See paragraphs [0025]-[0029], all claims, and examples.

**35 USC § 103(a)**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 26-37, 40-42, and 44-49 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US 5503765 (SCHEPERS et al) and US 5268003 (COOPE et al). Both references teach a dipercarboxylic composition, which embrace the Applicant's claimed invention.

SCHEPERS et al discloses a non-aqueous liquid composition of dipercarboxylic acid, which is stable even at room temperature. It also teaches that this composition may be stably incorporated for five days or greater. It gives the same range (at least 0.1%) as the applicant's claimed invention. See the entire document, especially the abstract, lines 22-37 in Column 2, the examples, and claims.

COOPE et al discloses an aqueous liquid composition of dipercarboxylic acid, which is stable even at room temperature. See the entire document, especially lines 16-21 in Column 8, examples, and claims.

Examiner notes that COOPE et al does *not* disclose a range. However, with SCHEPERS et al, it would have been obvious to those with ordinary skill in the art to put these two teachings

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together at the time of invention. There is enough motivation in the cited references to prepare the composition in the presently claimed invention. No unobvious or unexpected results are noted.

2. Claims 26-37, 40-42, and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5437868 (OAKES et al) and US 5049298 (PLOUMEN et al). Both references teach dipercarboxylic acid compositions, which embrace the Applicant's claimed invention.

OAKES et al teaches peroxyacid antimicrobial concentrates for sanitizing surfaces, facilities, and equipment found in food manufacturing and food processing and food service industries, and typically hard non-porous surfaces in the health care industry. (See lines 10-15 in col. 1) Furthermore, OAKES et al teaches diperoxydicarboxylic acid aqueous compositions. See the entire document, especially the examples and claims (*especially* claim 2).

PLOUMEN et al teaches a process for the preparation of organic peroxyacid containing bleaching granules or powder. (See lines 45-47 in col. 2) Furthermore, PLOUMEN et al lists preferred diperoxy acids in lines 60-68 in col. 4 and 1-8 in col. 5. See the entire document, especially the examples, the claims, and Tables I and II.

The instant invention differs from the prior art in that the presently claimed invention is using the dipercarboxylic acid in solid form and using it as a sterilant in aqueous form while the prior art teaches the same aqueous composition for use as peroxyacid antimicrobial concentrates for sanitizing surfaces, facilities, and equipment found in food manufacturing and food processing and food service industries, and typically hard non-porous surfaces in the health care

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industry (OAKES et al). The prior art teaches the solid form of peroxyacids in the form of granules or powder (PLOUMEN et al).

3. Claims 26-37, 40-42, and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over and LAGNEMO et al<sup>2</sup>. The prior art teaches a bleaching agent of Formula I, which is a dipercarboxylic acid. This bleaching agent is stable during storage. It gives a satisfying yield of percarboxylic acids in aqueous solutions and can be used without or with less supply of hydrogen peroxide than bleaching agents presently available. The agent should have capability to generate percarboxylic acids with a suitable rate to achieve a constant concentration during a whole washing cycle, and be compatible with other components in a detergent. Finally, it is desirable that it is harmless and inexpensive. In order to stabilize against decomposition catalyzed by metal cations, such as Cu.sup.2+, Mn.sup.2+ or Fe.sup.3+, the composition may also may contain small amounts of sequestering agents, such as EDTA, NTA, dipicolinic acid, or phosphonates, for example Dequest 2010.RTM., Dequest 2016.RTM.or Dequest 2040.RTM., preferably in amounts from 0.1 to 1% by weight, and optionally in combination with magnesium silicate. Compositions according to the prior art are useful for all kinds of bleaching in alkaline environment, in which bleaching means oxidative decomposition of chromophoric systems, which regarding peracids probably is due to the oxidation of conjugated double bonds. The composition is specifically advantageous at bleaching in combination with cleaning, especially at washing of textiles, in which case a good bleaching effect is obtained at such low temperatures as 20 degrees Celsius. See the entire document, especially lines 45-62 in col. 1, lines 25-32 in col. 7, lines 52-60 in col. 7, and lines 7-17 in col. 9.

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<sup>2</sup> United States Patent No. 5415668, filed on November 6, 1992.

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Instant claims differ from the reference in generating dipercarboxylic acids by using the compounds of Formula I, cited below.



Formula I

In the instant invention, Applicants are using dipercarboxylic acids for the preparation of the composition. All ingredients of the compositions as presently claimed are taught by the prior art.

The complete composition is given in the Table in lines 7-17 in col. 9. A copy of this table is cited below:

diacylated dipercarboxylic acids	1-10
perborate	3-15
anionic surfactants	5-20
nonionic surfactants	2-11
soaps	0,1-4
sequestering agents	0,1-1
fillers	16-50
zeolites	10-45
polycarboxylates	3-5
sodium carbonate	5-15

Table in Lines 7-17 of Column 9

It would have been obvious to one skilled in the art at the time of invention to prepare additional beneficial compositions in solid or aqueous form because the prior art teaches it for the reasons cited above.




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In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on (571) 272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SABIHA QAZI, PH.D.  
PRIMARY EXAMINER

Friday, October 29, 2004